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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/401,293      | 09/23/1999  | MASAHIRO HAYAMA      | Q55778              | 4480             |

7590 07/02/2004

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WASHINGTON, DC 200373202

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| EXAMINER |
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ANDERSON, MATTHEW D

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2186

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |  |   |  |
|------------------------------|--|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/401,293   | <b>Applicant(s)</b><br>HAYAMA, MASAHIRO |  |
|                              | <b>Examiner</b><br>Matthew D. Anderson | <b>Art Unit</b><br>2186                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/23/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

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**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. In response to the amendment filed 5/28/04: claims 30-39 have been amended, and the corresponding objections have been withdrawn.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 30-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Komatsu *et al.* (US Patent 5,802,551).

4. With respect to claims 30, 32, 33, 35, and 37-39, Komatsu *et al.* disclose:

a rewrite program area for storing a program for a rewriting processing procedure for said memory, as shown by SRAM 23 in figure 1;

and a controller (21) for forming a plurality of flag areas locally in said flash memory when the rewriting program is stored in external storage means or said rewrite program area is rewritten into said flash memory, performing determination of completion of a plurality of stages of rewriting processing or determination of whether the plurality of stages are good or bad and renews recording results of the determination of completion of each stage or results of

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determination of whether each stage is good or bad into said flag area a step at a time, as shown by the flags in figures 2-4;

wherein said stages of rewriting processing comprise: erasure of the flag area (step S1 in figure 5); blank check of the data area (end erasing flag in figure 4), and writing of data into said data area (free block flag in figure 4).

5. With respect to claims 31, 34, and 36, Komatsu *et al.* disclose:

the memory including a plurality of blocks, each of which is an erasable unit and includes a data area and a flag area, as shown in figures 2-4;

the controller mapping the data areas of the plurality of blocks to successive addresses, as shown in figure 10A..

6. With respect to claims 32, Komatsu *et al.* disclose the controller further determining if the rewriting processing was performed without interruption by comparing a value read from a flag area to an expected value, as shown by the setting and resetting of the rewrite flag in figure 5.

7. With respect to claim 35, Komatsu *et al.* disclose making the comparison when the power supply is made available after the rewriting is complete, by teaching in column 13, lines 40-65, that after a power failure, the process can be restarted at the point where previously left by checking the free flags in the blocks.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 31, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Komatsu *et al.* and Sukegawa *et al.* (US Patent # 5,603,001).

10. With respect to claims 31, 34, and 36, Sukegawa *et al.* disclose mapping the data areas of the plurality of block to successive addresses by teaching in column 15, lines 55-60, that

consecutive disk addresses are mapped in the ROM and the flash EEPROMs.

11. It would have been obvious to one of ordinary skill in the art, having the teachings of the Komatsu *et al.* and Sukegawa *et al.* before him at the time the invention was made, to modify the flash memory refreshing taught by Komatsu *et al.*, to include the consecutive address mapping to flash, as taught by Sukegawa *et al.*, in order to aid in error detection and correction, as taught by Sukegawa *et al.*.

#### *Response to Arguments*

12. Applicant's arguments with respect to claims 30-39 have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Anderson whose telephone number is (703) 306-5931. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Matthew D. Anderson  
June 29, 2004